What is claimed is:

1. A composition comprising 1,3-Bis-(1,2-bis-tetradecyloxy-propyl-3-dimethylethoxyammoniumbromide)-propane-2-ol (PCL-2) and further comprising at least one lipid selected from the group of lipids consisting of cholesterol, dioleoylphosphatidylethanolamine (DOPE), 1,2 Dioleoyl-sn-glycero-3-phosphocholine (DOPC), alpha tocopheryl acid succinate and any other phosphatidylcholine.]

2. The composition of claim 1, consisting of DOPC, PCL-2, and cholesterol.

3. The composition of claim 2, having a percent molar ratio of DOPC:cholesterol:PCL-2 of between about (50-65):(25-35):(5-20).

4. The composition of claim 2 or 3, further comprising D-alpha tocopheryl acid succinate

5. The composition of claim 4, wherein the D-alpha tocopheryl acid succinate is present at between about 0.1 wt % and about 1 wt %.

6. The composition of claim 1, consisting of PCL-2 and cholesterol.

7. The composition of claim 6, wherein the molar ratio of PCL-2 and cholesterol is between 1:3 and 6:1.

8. The composition of claim 1, consisting of PCL-2 and DOPE.

9. The composition of claim 8, wherein the molar ratio of PCL-2 and DOPE is between 1:3 and 3:1.

10. The composition of claim 9, wherein the molar ratio of PCL-2 and DOPE is 1:2.

11. The composition of any of claims 6-10, wherein the total lipid concentration is between about 1.0 mg/mL and about 60 mg/mL.

12. The composition of any of claims 1-11, wherein the concentration of PCL-2 is about 10 mM.

13. The composition of any of claims 1-12, further comprising a sugar.

14. The composition of claim 13, wherein the sugar is sucrose.

15. The composition of claim 13 or 14, wherein the sugar is present at about 5 wt% to about 30 wt%.

16. The composition of any of claims 1-15, further comprising a carrier.

17. The composition of claim 16, wherein the carrier is water.

18. The composition of claim 16, wherein the carrier is a physiologically-compatible buffer.

19. The composition of any of claims 1-18, wherein a portion of the PCL-2 is part of an emulsion.

20. The composition of any of claims 1-18, wherein a portion of the PCL-2 is present within liposomes.

21. The composition of claim 20, wherein the mean size of the liposomes is between about 50 nm and about 200 nm.

22. The composition of claim 20 or 21, wherein 99% of the liposomes have a diameter less than between about 170 nm and about 500 nm.

23. The composition of any of claims 1-22, having a pH of between about 3 and about 8.

24. The composition of any of claims 1-22, having a pH of between about 7 and about 8.

25. The composition of any of claims 1-24, further comprising at least one active agent.

26. The composition of claim 25, wherein the active agent is a polynucleotide.

27. The composition of claim 26, wherein the polynucleotide encodes a therapeutic polypeptide.

28. The composition of claim 27, wherein the therapeutic polypeptide comprises immunogenic peptides.

29. The composition of claim 26, wherein the polynucleotide is DNA.

30. The composition of claim 29, wherein the DNA is an oligodeoxyribonucleotide.

31. The composition of claim 30, wherein the respective charge ratio of cationic cardiolipin PCL-2:oligodeoxyribonucleotide ranges from (1.0-4.0): 1.

32. The composition of claim 30, wherein said respective total lipids to oligodeoxyribonucleotide molar amounts ranges from (10-200):1.

33. The composition of claim 30, wherein the oligodeoxyribonucleotide contains at least one phosphothioate modification.

34. The composition of claim 30, wherein the oligodeoxyribonucleotide ranges in size from 10 to 40 nucleotides.

35. The composition of claim 34, wherein the oligodeoxyribonucleotide ranges in size from 15 to 25 nucleotides.

36. The composition according to any of claims 30-35, which comprises liposomes and wherein between 60-80% of the oligodeoxyribonucleotide is complexed with cationic lipids in the inner core of the liposomes.

37. The composition of any of claims 30-36, wherein the oligodeoxyribonucleotide has a sequence comprising 5'-GTGCTCCATTGATGC-3' (SEQ ID NO: 1).

38. The composition of claim 26, wherein the polynucleotide is RNA.

39. The composition of claim 38, wherein the RNA is siRNA.

40. The composition of any of claims 26-39, wherein the polynucleotide hybridizes to a human mRNA.

41. The composition of any of claims 26-39, wherein the polynucleotide hybridizes to a plant mRNA.

42. The composition of any of claims 26-39, wherein the polynucleotide hybridizes to a plant parasitic or fungal mRNA.

43. The composition of any of claims 40-42, wherein the polynucleotide inhibits the expression of the gene upon binding to the mRNA.

44. The composition of claim 40, wherein the mRNA is an oncogene.

45. The composition of claim 44, wherein the oncogene is selected from the group of oncogenes consisting of ras, raf cot, mos, myc.

46. The composition of claim 44 or 45, wherein the oncogene is c-raf-1.

47. Use of the composition of any of claims 1-46 for cosmetics.

48. Use of the composition of any of claims 1-46 as a vaccine.

49. Use of the composition of any of claims 1-46 for agricultural purposes.

50. A method of inhibiting the growth of neoplastic cells comprising administering the composition of any of claims 40-46 to neoplastic cells under conditions such that said polynucleotide enters said cells, whereby the polynucleotide inhibits the expression of said oncogene to which it is targeted within said neoplastic cells.

51. The method of claim 50, wherein said cells are *in vitro*.

52. The method of claim 50, wherein said cells are *in vivo*.

53. A method of treating a patient suffering from a neoplastic disease comprising administering the composition of any of claims 40, 43, 44, 45 or 46 to said patient under conditions such that said polynucleotide enters neoplastic cells within said patient, whereby the polynucleotide inhibits the expression of said oncogene to which it is targeted within said neoplastic cells.

54. The method of claim 53, wherein the patient is a vertebrate animal.

55. The method of claim 54, wherein the vertebrate animal is a human.

56. The method of any of claims 53-55, wherein said neoplastic disease comprises cancer.

57. The method of any of claims 53-56, wherein said neoplastic cells are within a tumor.

58. The method of any of claims 53-56, wherein said neoplastic cells are metastasized cells.

59. The method of any of claims 53-58, wherein the composition is administered adjunctively with a second antineoplastic agent.

60. The method of claim 59, wherein the composition is administered prior to, concurrently with, or after the second antineoplastic agent.

61. The method of claim 59 or 60, wherein the antineoplastic agent is radiation.

62. The method of claim 59 or 60, wherein the antineoplastic agent is a chemotherapeutic agent.

63. The method of claim 59 or 60, wherein the antineoplastic agent is docetaxel.

64. A method for validating a target gene, comprising (a) administering to a cell a composition comprising a cationic liposome and an RNAi, whereby the RNAi enters the cell inhibits the expression of a gene within the cell and (b) assaying for the inhibition of the gene.

65. The method of claim 64, wherein the composition is the composition of any of claims 1-46.

66. A fluorescent cationic cardiolipin analogue.

67. The fluorescent cationic cardiolipin analogue of claim 66, comprising a cationic cardiolipin molecule conjugated to a fluorescent/ luminescent moiety.

68. The fluorescent cationic cardiolipin analogue of claim 67, wherein the cationic cardiolipin molecule is PCL-2.

69. A luminescent cationic cardiolipin analogue.

70. The luminescent cationic cardiolipin analogue of claim 69, comprising a cationic cardiolipin molecule conjugated to a fluorescent/ luminescent moiety.

71. The luminescent cationic cardiolipin analogue of any of claims 69-70, wherein the cationic cardiolipin molecule is PCL-2.

72. A composition comprising the fluorescent/ luminescent cationic cardiolipin analogue of any of claims 66-71 and a physiologically-acceptable carrier.

73. A liposomal composition comprising the fluorescent/ luminescent cationic cardiolipin analogue of any of claims 66-71.

74. The liposomal composition of claim 73, further comprising an additional lipid.

75. The liposomal composition of claim 74, further comprising a physiologically acceptable carrier.

76. A method of tracking the migration of a lipid substance within an animal comprising (a) introducing the composition of any of claims 72-75 into an animal, (b) causing the fluorescent/ luminescent cationic cardiolipin analogue to fluoresce or luminate, and (c) observing the position of fluorescence or luminescence.

77. The method of claim 76, wherein steps (b) and (c) are repeated one or more times.

78. The use of a composition of any of claims 1-46 as a transfection agent.

79. A method of transfecting a cell with a polynucleotide, comprising exposing the cell to the composition of any of claims 1-46 under conditions sufficient for the polynucleotide present within the composition to enter the cell.

80. The method of claim 79, wherein the cell is *in vitro*.

81. The method of claim 79, wherein the cell is *in vivo*.

82. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 1
5'-UGGAAUGAGCUUACAUGACdTdT-3'
3'-dTdTACCUUACUCGAAUGUACUG-5'

83. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 2
5'-GCACGCUUAGAUUGGAACAdTdT-3'
3'-dTdTCGUGCGAAUCUAACCUUGU-5'

84. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 3
5'-UGCGUCGGAUGCGAGAAUCdTdT-3'
3'-dTdTACGCAGCCUACGCUCUUAG-5'

85. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 4
5'-UCCGGAUGCAGGAUGACAAdTdT-3'
3'-dTdTAGGCCUACGUCCUACUGUU-5'

86. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 5
5'-UCAACAGGAGCGCCUCUGAdTdT-3'
3'-dTdTAGUUGUCCUCGCGGAGACU-5'

87. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 6
5'-UGCUUGCACGCUGACUACAdTdT-3'
3'-dTdTACGAACGUGCGACUGAUGU-5'

88. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 7
5'-AUUCCUGCUCAAUGGAUUUdTdT-3'
3'-dTdTUAAGGACGAGUUACCUAAA-5'

89. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 8
5'-GCUGCAUCAAUGGAGCACAdTdT-3'
3'-dTdTCGACGUAGUUACCUCGUGU-5'

90. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 9
5'-CUGCAUCAAUGGAGCACAUdTdT-3'
3'-dTdTGACGUAGUUACCUCGUGUA-5'

91. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 10
5'-UGCAUCAAUGGAGCACAUAdTdT-3'
3'-dTdTACGUAGUUACCUCGUGUAU-5'

92. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 11
5'-GCAUCAAUGGAGCACAUACdTdT-3'
3'-dTdTCGUAGUUACCUCGUGUAUG-5'

93. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 12
5'-GCUGCAUCAAUGGAGCACAUU-3'
3'-UUCGACGUAGUUACCUCGUGU-5'

94. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 13
5'-CUGCAUCAAUGGAGCACAUUU-3'
3'-UUGACGUAGUUACCUCGUGUA-5'

95. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 14
5'-UGCAUCAAUGGAGCACAUAUU-3'
3'-UUACGUAGUUACCUCGUGUAU-5'

96. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 15
5'-GCAUCAAUGGAGCACAUACUU-3'
3'-UUCGUAGUUACCUCGUGUAUG-5'

97. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 16
5'-GCUGCAUCAAUGGAGCACAUAdTdT-3'
3'-dTdTCGACGUAGUUACCUCGUGUAU-5'

98. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 17
5'-AAGCUGCAUCAAUGGAGCACAdTdT-3'
3'-dTdTUUCGACGUAGUUACCUCGUGU-5'

99. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 18
5'-GCAUCAAUGGAGCACAUACAGdTdT-3'
3'-dTdTCGUAGUUACCUCGUGUAUGUC-5'

100. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 19
5'-CUGCAUCAAUGGAGCACAUACdTdT-3'
3'-dTdTGACGUAGUUACCUCGUGUAUG-5'

101. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 20
5'-AAGCUGCAUCAAUGGAGCACAUACdTdT-3'
3'-dTdTUUCGACGUAGUUACCUCGUGUAUG-5'

102. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 21
5'-GCUGCAUCAAUGGAGCACAUACAGdTdT-3'
3'-dTdTCGACGUAGUUACCUCGUGUAUGUC-5'

103. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 22
5'-GCAUCAAUGGAGCACAUACAGGGAdTdT-3'
3'-dTdTCGUAGUUACCUCGUGUAUGUCCCU-5'

104. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 23
5'-UUAAGCUGCAUCAAUGGAGCACAUdTdT-3'
3'-dTdTAAUUCGACGUAGUUACCUCGUGUA-5'

105. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 24
5 '-GCUGCAUCAAUGGAGCACAUAUU-3'
3'-UUCGACGUAGUUACCUCGUGUAU-5'

106. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 25
5'-AAGCUGCAUCAAUGGAGCACAUU-3'
3'-UUUUCGACGUAGUUACCUCGUGU-5'

107. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 26
5'-GCAUCAAUGGAGCACAUACAGUU-3'
3'-UUCGUAGUUACCUCGUGUAUGUC-5'

108. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 27
5'-CUGCAUCAAUGGAGCACAUACUU-3'
3'-UUGACGUAGUUACCUCGUGUAUG-5'

109. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 28
5'-AAGCUGCAUCAAUGGAGCACAUACUU-3'
3'-UUUUCGACGUAGUUACCUCGUGUAUG-5'

110. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 29
5'-GCUGCAUCAAUGGAGCACAUACAGUU-3'
3'-UUCGACGUAGUUACCUCGUGUAUGUC-5'

111. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 30
5'-GCAUCAAUGGAGCACAUACAGGGAUU-3'
3'-UUCGUAGUUACCUCGUGUAUGUCCCU-5'

112. The composition of claim 39, wherein the siRNA comprises the following sequence:

SEQ ID NO: 31
5'-UUAAGCUGCAUCAAUGGAGCACAUUU-3'
3'-UUAAUUCGACGUAGUUACCUCGUGUA-5'

113. The composition of any of claims 1-112, comprising a plurality of active agents.

114. The composition of claim 113, wherein at least two active agents comprise nucleic acids.

115. The composition of claim 114, wherein at least one of said nucleic acids is a siRNA species.

116. The composition of claim 114, wherein at least one of said nucleic acids is an oligonucleotide.

117. The composition of any of claims 114-116, wherein a first and a second nucleic acids target separate genetic sequences.

118. The composition of claim 117, wherein the separate genetic sequences are found in separate genes.

119. The composition of claim 117, wherein the separate genetic sequences are found in the same gene.